

strate, and to put on the Purple was the same thing as to assume the Government. This Colour was so admired by the Poets, that they called every thing which was very bright and fine, Purple; as *Horace* complements the Swan, which is never of any Colour but white, with

Purpureis ales oloribus.

We find even *Snow* honoured with the same Epithet, whence some have imagined that *purpureus* signify'd *white*.

The Children of the Emperors, and such as had a Prospect of rising to the Throne, and their Guardians, sometimes wrote with Green; Gold also was employ'd for the like Purpose. They that desire to see more upon this Subject may have Recourse to *Mabillon De Re Diplomatica*, and *Monfaucon* in his *Palæographia Græca*.

III. *Some Experiments concerning the poisonous Quality of the Simple Water distilled from the LAURO-CERASUS, or common Laurel, made upon Dogs, at Toppingo-Hall in Essex, August the 24th 1731. and others made before the ROYAL SOCIETY in their Repository. By Cromwell Mortimer, M. D. R. S. Secret.*

I Took a Peck of Laurel Leaves, and put them into an Alembick with three Gallons of Water, which

I distilled in the common Way, as *Penny Royal, Mint Water*, or any Simple Waters are made. The Fire at first being too hot, there came over an Oiliness with the Water, (1.) which made it appear milky, till about half a Pint had run: This tasted and smelt very strong like Apricot Kernels, as did the next Running, (2.), which was clearer. I kept the first Quart of it by itself; then I drew off another Quart, (3.) which was not near so strong in Taste or Smell, but rather resembled *Black-Cherry Water*: The Remainder was almost insipid. The Leaves after the Distillation look'd brownish, were brittle, and tasted bitter without the Roughness or Apricot-Kernel Flavour, which they have while fresh.

In the Afternoon of the same Day I took a Mungrel Puppy, weighing two Pounds and an half, about sixteen Days old; it had suck'd the Bitch in the Forenoon, but had now fasted six Hours. I took one Ounce of the third Water, and gave some of it to the Puppy, gradually by Tea-Spoonfuls, that it might the better swallow it. When it had taken half the Quantity, I let it go; it walk'd about pretty strongly for five Minutes, when it began to foam at the Mouth, and soon after vomited up some curdled Milk, and then discharged the *Fæces alvinæ*, after which the Sicknes seemed to go off: I then gave it three Tea-Spoonfuls more; in ten Minutes it began to stagger, and draw its hind Parts after it; it sat upon its Breech, whined, and made several Efforts to vomit, but never brought any thing up; and then again would walk about, and sit down and whine, and again seem to recover for about fifteen Minutes longer: Then thinking the second Water would

would dispatch it sooner out of its Misery, it seeming to be very uneasy, I took one Ounce and half of the second Running: I gave it first three Tea Spoonfuls, and set it down, when in two Minutes time it became strongly convulsed, put out the Tongue, and made strong Efforts to vomit, but to no Effect; it could not stand on its Legs, but lay with its hind Legs stretched out: Five Minutes after I gave three Tea Spoonfuls more, when it was stronger convulsed, rolled over and over several times, drew its Head back to its Rump, then lay on its Side and panted much: About eight Minutes after, I gave it two Tea Spoonfuls more, and it had fresh and strong Convulsions, but kept lying on its Side, and thus stretching out its four Legs one after another, drawing in its Flanks very quick; in fifteen Minutes more it died, being in all about an Hour from the first Dose.

An Hour after it was dead I opened it, and found all the Contents of the *Abdomen* well; the Stomach was distended with Wind, being opened, it appeared empty of Milk, but full of Froth, and a clear *Mucus* of a much thicker Consistence than the *Liquor Gastricus* naturally is; they had no Smell at all, the inside of the Stomach was not at all inflamed.

On opening the *Thorax* I found the Lungs a little redder than natural, with some Vessels on the outward Membrane of them very turgid: On cutting them out a pretty deal of clear red Blood ran from them. The Veins and both Ventricles of the Heart were turgid and full of coagulated Blood, of a dark-brown Colour, which tinged my Fingers of a dirty yellow, as if some Gall had been mix'd with it.

There was no Blood in the Arteries ; the *Foramen Ovale* was open.

On opening the Head, the *Dura Mater* appeared livid, as if bruised, its Vessels and the *Sinus falciformis* were turgid and full of the same Blood, as the Heart and Vessels near it. The cortical Substance of the Brain looked of an unusual livid blueish Colour.

Next Day about Five in the Afternoon I took a large Mastiff Dog weighing seventy-five Pounds. We tied him to a Post as he stood on his Legs, one holding him strongly by the Tail, he being very fierce and unmanageable : We injected *per Anum* three Ounces of the second Running ; in five Minutes he trembled and stagger'd much, would let us handle him, he drew his hind Legs after him, tumbled on his Head, panted and slabber'd, but gradually recover'd so as to stand up, tho' reeling and often sinking with his hind Legs. Fifteen Minutes after, we injected one Ounce more ; he immediately stagger'd and sunk behind, soon after he made Water plentifully. We then led him to another Kennel, where he soon discharged the *Fæces alvinae* plentifully, but of an hard Consistence : The *Fæces* seem'd moisten'd with the last injected Ounce, which I imagin'd came away by this Stool ; I therefore immediately injected another Ounce, upon which he seemed more uneasy than before, tumbling on one Side, and in about ten Minutes after, he fell fast asleep, breathing with Difficulty ; half an Hour after, I rouzed him, found him slabbering, drowsy, sinking behind, and giddy : About an Hour and a Quarter after the first Injection, I found him as before, but provoking him with a Stick, he bit at it, and

and tho' naturally fierce, he was very quiet when I did not strike him; in a few Minutes he reeled and fell a snoaring again: About Nine at Night he seemed very well, only drowsy. We left him all that Night without Water and Victuals, but thro' Hunger he eat some of the Straw he lay on, as we found afterwards upon opening his Stomach. Next Morning, being *Friday*, we gave him Water and Bones; he drank greedily, and eat the Bones, Bread, and whatever was given him, seeming perfectly recover'd and well all Day and the next Night, only very thirsty, and a little drowsy, but perfectly gentle.

On *Saturday*, about Nine o'clock in the Forenoon, we fasten'd him to a Post, and put a Rope into his Mouth, by which his Nose was ty'd fast to a Rail, great Care being taken that there should be no Rope about his Neck so tight, as to hinder his swallowing or his breathing: I then gave him three Ounces of the second Running, at three times, with an Horn, such as they drench Horses with; he swallowed it with great Difficulty, and guggled some up again: To prevent which, I thrust the Horn a good way down his Throat. We then unty'd him from the Post, to see how he could walk, but he instantly reeled, fell down, rolled over and over, discharg'd much Urine, and some hard *Fæces alvinæ*, had no Motion to vomit, but dribbled much, panted, and shewed great Difficulty of breathing, snuffing up the Air with his nostrils, holding his Nose up, as he sat on his Breech; for he could not then stand on his hind Legs: He often shook his Head, as if stung by some Fly: He gradually recover'd, and in about twenty Minutes time could walk

walk about very steadily on all his Legs, tho' he still appear'd weakest behind: Wherefore imagining he might linger a long time, or perhaps recover entirely, we made him fast again, and gave him three Ounces more, near half of which he spilt; and indeed out of the six Ounces, I don't believe above three or four enter'd his Stomach: He gave one terrible loud Howl, and funk down at once, before we could untie him from the Post, to see whether he could walk or not. He never offer'd to rise again, but lay on one Side, panted, hung his Tongue out, and slabber'd much, stretch'd all four Legs out three or four times, and was quite dead and motionless in about five Minutes time. I did not observe any Convulsion in the Muscles of the Neck and Back, nor was his Head and Tail drawn nearer together, as in the Puppy.

About half an Hour after I open'd him, being still warm. I found the Bladder contracted and empty; the *Rectum* slightly inflamed, the small Guts not distended with Wind, but contracted, and almost close; the Bile was evacuated in a great Quantity into the *Duodenum*, and was very thick, appearing like congealed Honey; the Gall-bladder was almost empty; but what remained in it was as thick as the other; to the Inside of the Gall-bladder there adhered several Excrescencies in Form and Size of Lentils, like Drops of softish yellow Wax: The Liver was exceedingly inflamed, and almost livid: The Stomach was contracted near the *Pylorus*, and again about three Inches above it; upon opening it, we found some pieces of Bone in it, a pretty deal of Straw, and about two Ounces of Fluid, which smelt strong of the

Laurel

Laurel Water ; but no *Mucus*, as in the Puppy : Some of the *Villi* seemed slightly inflamed, the Blood Vessels being very turgid : There was a great deal of *Mucus* in the *Oesophagus*, which did not seem inflamed. On opening the *Thorax*, the Lungs appear'd exceedingly contracted, and very red and inflamed. In this Dog it was very evident, that the *Pericardium* did not adhere to the *Diaphragm* as in erect Animals, here being a Distance of above two Inches, which was fill'd up by an *Appendix* to the right Lung ; on removing which the *Vena cava* run from the *Diaphragm* about three Inches to the *Pericardium* quite free, not adhering to the Back by any Fibres or Membranes, and was entirely envelop'd by this Appendix of the Lung. The *Vena cava* and all the Veins were vastly distended, and the Blood in them coagulated, tho' the Body was yet hot : There was little or no Blood in the *Aorta* ; only on pressing it, a small Quantity of a transparent Fluid, which I took for *Serum*, flowed out of it. The Blood was strongly coagulated in the right Auricle and Ventricle of the Heart, being of a very dark Colour, and fill'd them quite ; but the left Auricle and Ventricle contained only a small Clot of congealed Blood, which look'd more red and florid : I kept some Clots of the Blood out of the Vein, and also out of the left Ventricle, twenty-four Hours, but neither of them liquified or run into *Serum*. I had the Head cut off, but Business preventing, I did not open it till twenty-four Hours after ; a great deal of Blood drained from it, and upon opening it, the Vessels did not then appear distended, but the *Dura Mater* look'd livid :

livid : There was no Blood at all in the *Sinus falciformis*; the Brain look'd very well; the Vessels of the *Plexus Choroides* in each Ventricle were not di-stended, but livid, nor were they burst, there being no Extravasation in the Ventricles, only a very small Quantity of Lymph ; which was the Case likewise of the *Pericardium*, which had not above a Tea Spoonful of Water in it.

In both these Instances this Poison seems to act by coagulating the Blood ; so that it can't pass the Lungs or Brain : And I take it that the Puppy liv'd longer than the great Dog ; because in the Puppy the *Foramen Ovale* was open, by which the thicken'd Blood could pass, and perform a few Circulations more than it could have done, had it had the Lungs to pass thro' ; and that in the Puppy the Brain was the Part the most affected, as was evident from the Convulsions it had : Whereas the Dog was little convulsed, but seem'd to die of a Difficulty of Breathing ; and the greatest Accumulation was found at the right Ventricle of the Heart.

When I return'd to *London*, I got a middling-siz'd Spaniel, on whom I tried the Experiment at the House of our Honourable President. I pour'd about three Ounces of the Laurel Water into an old Coffee-Pot, and while the Dog was held fast by another, some Laurel Water was poured down his Throat : He strug-gled pretty much at first, and whined ; but when about half of it was down, he ceased struggling ; that he might not be too long a dying, the Remainder was given him ; he spilt about one third of the whole Quantity : He was then laid down on the Ground,
but

but never offer'd to get up, only stretching out his Legs, expir'd presently. Mr. *Ranby*, who assisted at the Experiment, open'd him immediately; there was about two Ounces of the Laurel Water found in his Stomach, and some frothy *Mucus*; the Veins in general were very turgid, but the Blood was still fluid; and indeed we could discern no Alteration in any of the *Viscera*.

I gave four Ounces of *Laurel Water* to Dr. *Porter*, *Coll. Med. Lond. Licentiat.* He forc'd down a pretty large Dog three Ounces, with no great Difficulty. The Creature instantly returned about two Ounces by Vomit, clear and unalter'd; in a few Minutes he grew prodigiously convulsed, soon after became motionless, and to all appearance was dying. Within ten Minutes he vomited a second time, and threw up a small Quantity of a viscid, green, and very frothy Matter: From which Moment he began to recover, and within half an Hour was perfectly well. He was kept in the Yard all Night, and the next Morning not the least Disorder being to be perceived in him, he was turned out of Doors.

An Account of the Experiment tried upon a Dog with Laurel Water, in the Presence of several Members of the Royal Society, in their Repository, upon Thursday the 28th of October 1731.
By Cromwell Mortimer, R. S. Secr.

About half an Hour after Six in the Evening I gave about half an Ounce of the *Laurel Water* to a middle-siz'd Spaniel weighing near sixteen Pound, which he swallowed with great Reluctance, spilling

near as much more, which I endeavour'd to pour down his Throat. Some of the Company desired he might be set down, to see what Effect so small a Quantity would produce : He remained about a Minute and half on his Legs ; he then began to reel, and in about three Minutes more fell into most violent Convulsions, and his Neck and Tail were strongly drawn toward each other ; he neither vomited nor purged, but we expected he would expire every Minute, the Convulsions being so exceedingly strong, when some of the Company call'd for some Milk, in order to try whether it would prove an Antidote to so *desperate a Poison*. We poured a little Milk into his Throat, which at first he could not swallow, but guggled it up again as if almost strangled with it. After several Trials he began to swallow some, about a spoonful at a time, and seemed a little relieved, his Convulsions leaving him, only fetching his Breath very hard ; but he lay still and snorted, as if in a profound Sleep ; and the Milk frothed out of his Nose : On rouzing him, he opened his Eyes, and swallowed the Milk better, which seemed to revive him much ; so that the Company imagining he would entirely recover, went away. I staid some time longer, till at last he began to lap the Milk himself when held up to it : He vomited up a pretty deal of Milk, which relieved him more ; and then he lapped again, but could not stand on his Legs. I left him in this Condition about seven o'Clock, thinking he would have recovered, and left Orders that he should have a Pan of Milk, and another of Water, about a Pint of each, set by him, and that he should be kept shut up all Night. About

About eleven o'Clock he was seen alive and walking about; but next Morning he was found dead, after having drank up all the Milk and Water, and having vomited and purged pretty much.

Thus we find this simple Water distilled from a Vegetable, equally mortal with the Bite of the Rattle-Snake, and more quick in its Operation than any Mineral Poison; and tho' it may not immediately bring on Death, when taken in small Quantities, or mixed with other Liquors, it being common among our good Housewives to put Laurel Leaves into Cream to give it the Rattafia or Apricot-Kernel Flavour; and some Compounders of Cordial Waters, to use the Berries of this Plant in Brandy instead of Black Cherries, to mix some of the distilled poisonous Water with Brandy to make Rattafia, or to dilute it with common Water, till it resembles Black-Cherry Water in Taste; tho' one single Draught at a time may not prove immediately mortal, yet an habitual Use of these Liquors must certainly be exceeding prejudicial and unwholesome, and in weakly Persons must hasten Death.

I am informed that a Gentleman and his Wife, who used for several Years to drink daily a Dram or two of the Brandy in which Laurel Berries were infus'd, both died paralytic, having lost their Speech some time before.